

Monsanto

FROM (NAME & LOCATION)

J. R. Darby - Galt 1730

DATE : March 2, 1973
SUBJECT : Report on Armoride Visit
REFERENCE :

cc: E. H. Fording/R.Brell B3NJ
R. A. Onians - Brussels 5040
J. K. Lilly - B3NH
P. Stordeur - Louvain-La-Neuve
J. E. Springgate - B3NA
E. Muschick - B3NC
M. W. Farrar - R2E
J.A.Cannon/A.W.Morgan/N.W.Touchet

TO : John Deakin

Dear John,

We conclude that the Armoride visit was a complete success in totality. Ashworth and Freestone were warmly charming, good company, supreme vinyl technologists, with high mental acuity.

They claim to be a leader in technology and reliability in quality. We ultimately made the point that if they want to lead in the U.K., they should be the first to move to a linear phthalate since the users can readily pick up (or Armoride can demonstrate) by fogging, low temperature, volatility, cellulose nitrate migration resistance, etc, the performance of their product which could not be met by DAP. Additionally, we contended that inevitably (within three years) most everyone will be using linears for high performance vinyl - they should be first.

We had two hard-day working sessions according to the general outline of the agenda which you received, but deviated several times in their direction of interest. Their reaction was that S-711 appears much more interesting; without such an in-depth discussion they had no interest in further plant evaluation.

They perceived a degree of competency and meaningful developments in our laboratory far exceeding what they had encountered among the other suppliers.

Some highlights and commitments follow:

Ashworth said he could readily make Santicizer 711 work in his plant since understanding its processing characteristics and performance. As such, he will order 5 to 10 tons to prove this out. Probably you will have to ask for the order.

They want a sample of Santicizer 1687 and a technical data sheet. Will you please arrange?

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About 20% of their plasticizer usage appears to be Cereclor. This finally developed as we leveled with each other and confidential formulations are attached. We contended that Cereclor was acting as an expensive filler, and they would be better off to use economical filler with 711. We must computerize these cost implications since there are complicated cross-effects on economy. You will notice in some of their formulations that a polymeric plasticizer Crestapol 520 is used. We did not discuss polymerics in depth.

They were fascinated with the potential of pigment grinding (including Sb_2O_3) with the appropriate plasticizer (or Modaflow) and we will send them two samples of a pigment grind plasticizer and you should send them a 1 lb. sample of Modaflow. They took a very small sample along with them.

We had an in-depth discussion of plate-out on calenders and made a strong point for the consistency of Santicizer 711. The variation in plasticizer quality, potentially producing plate-out and erratic plastisol properties, were understood. They understood well the advantage of the low viscosity of 711 in plastisols, the ability therefore to use more filler, or the ability to wipe out inconsistencies in resins which gives them fits at the present time.

They were interested in an air release agent for plastisols; we explained the phenomenon, and gave them a sample of SAG-47 after demonstrating its effects and limitations in the laboratory.

Phil Freestone told me that the information supplied by Monsanto on the urethane staining of vinyl made it possible for Armoride to return to Marks and Spencer, whom they had paid 1,000 pounds as a result of a vinyl staining complaint, and get their money back.

We had an in-depth discussion on flammability, the use of phosphates in conjunction with alumina trihydrate and the upcoming problem we expect with smoke development from burning vinyls. They will probably be back to us with problems in this area as a need develops in your country.

They were completely fascinated by our input on fungicides which were negated by exposure to light. This is a highly scientific investigation in the exploratory phase which explains some phenomena they had encountered before. They were promised copies of slides of Paul Graham's phthalate ester toxicity presentation. Let me know if they don't receive them shortly.

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Jack Ashworth wants to meet you on your next call. Accordingly, I have sent to your attention two Darby College Diplomas, one for Ashworth and one for Phil Freestone which we expect you to confer with appropriate aplomb. These diplomas are hard to get and require considerable effort on the part of the Darby College students. Since we literally wore them out with challenging give-and-take discussions, they're deserving to enter the privileged world and associate with top flight vinyl technologists throughout the world.

They ask the question whether anyone was calendering 711 in the U.K. I answered probably not; we were looking for a progressive company to be the first. They inquired about bulk storage in the U.K. -- we just asked them to adopt it with their volume and this could be accomplished. (I hope this is right, John). They claim to use a total of about 7.5 million pounds of plasticizer now which will go up to 12 million in two years.

They met Mr. Springgate and many other of the top members of our business group. Always, our business group were impressed with their charm -- I believe that they were highly impressed with all the Monsanto personnel - the salesmen who guided them to the plants they visited, our executives, and our research personnel. Overall -- a most successful and fascinating visit.

When Pierre visits here in two weeks we will review the visit in depth.

Best of luck!


Joseph R. Darby

Att.

/vw

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CALENDEREDLAMINATEFOAMSKINTOPCOAT

Weight→		2-3 mils	Unblown 10 (2.3:1 Exp)	5	
100	PVC	100	100	100	PMMA
~60	DAP	100 { 75 DAP 25 Cereclor	83 { 68 DAP 15 Cereclor	33	+
--	C520	-	-	27	PVC/PVAc
3	ESO	-	-	3.5	in
10	Filler (CaCo ₃)	10	14	0	MEK &
2	Stabilizer (BaCdZn Liq)	1.7	Kicker 2 BA AZO	2.1	Toluene
4	Ground Pigment (Contains DAP)	3	3	3	<u>Thickness</u>

Range

<1 to 1.5
mils

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